

REMARKS

Reconsideration and further examination are requested in view of the above amendments and the following remarks.

By this amendment, independent claim 1 has been amended, independent claim 7 has been rewritten as new claim 18 with amendments incorporated therein, and claims 2-17 have been canceled. Therefore, claims 1 and 18 are now pending.

Claims 1, 2, 4-8, 10-12, and 14-17 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Shannon (US 5,485,049) in view of Jaffe (US 3,733,506) and Tanaka (US 6,127,759). Claims 3, 9, and 13 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Shannon in view of Jaffe, Tanaka, and Baines (GB 2209439). These rejections are traversed and are inapplicable to claim 1 as amended and new claim 18 for the following reasons.

Each of independent claims 1 and 18 recites an electric motor comprising: an armature core attached to a rotation shaft, having an even number of teeth radially, and an even number of slots formed between teeth; and an armature coil having a first coil wound between the slots and a surrounding plurality of teeth, and a second coil, wound between the slots and another plurality of teeth located at positions point-symmetric to the teeth around which the first coil is wound with respect to a center of the rotation shaft.

None of the prior art references of record disclose or suggest such features, and thus no obvious combination of any of the Shannon, Jaffe, Tanaka, and Baines references would result in the motors recited in claims 1 and 18. While Shannon discloses a three brush structure, the reference does not disclose or suggest the armature coil as recited in claims 1 and 18. While Tanaka shows that a slot and a commutator member are the same in number, the reference also fails to disclose or suggest the armature coil recited in claims 1 and 18. Baines discloses parallel connected coils but also fails to disclose or suggest the coil as recited in claims 1 and 18. Finally, Jaffe discloses an odd number of teeth (eleven) rather than the even number of teeth as recited in claims 1 and 18, and the first coil of Jaffe is thus not provided at positions point-

symmetric to a second coil with respect to a center of the rotation shaft as recited in claims 1 and 18.

Since none of the applied prior art references discloses or suggests the elements discussed above, no obvious combination of any of the applied references would have resulted in the inventions recited in claims 1 and 18 and thus claims 1 and 18 are not obvious in view of any combination of the applied references under 35 U.S.C. § 103(a). Accordingly, it is submitted that claims 1 and 18 are allowable over the prior art of record, and that the present application is thus in condition for allowance.

The Examiner is invited to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,

Yoshichika KAWASHIMA et al.

/Jeffrey R. Filipek/

By 2009.01.30 15:16:43 -05'00'

Jeffrey R. Filipek

Registration No. 41,471

Attorney for Applicants

JRF/fs
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
January 30, 2009